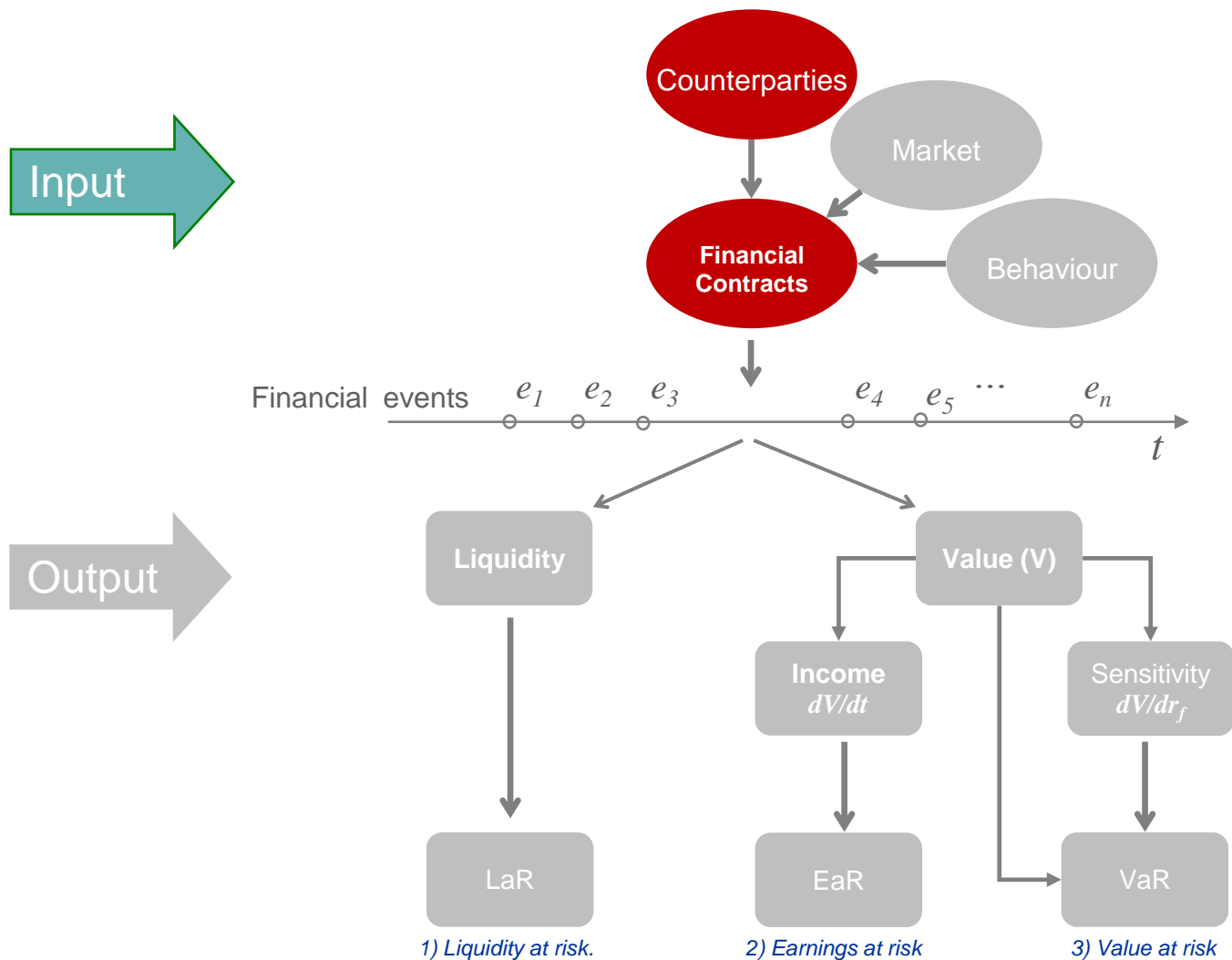


Financial Analysis Laboratory



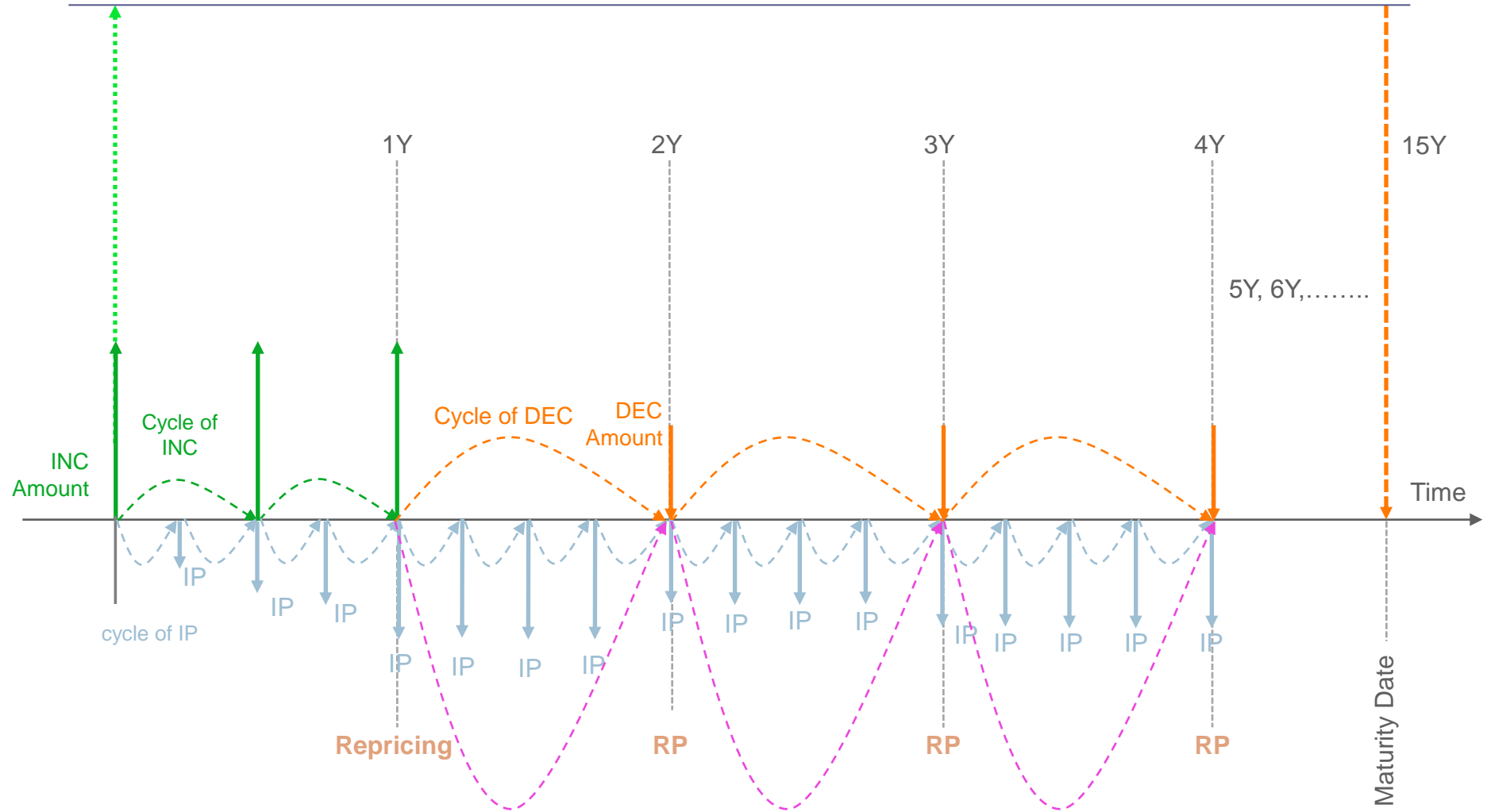
Setting Annuity (ANN) Financial Contract Type

Mortgage Loan with Increase / Decrease Principle and Fixed Interest payments

Mapping the ANN contract under the account Asset/Loans/Mortgages

- Source System Name: Banking
- Source System Record Number: 5
- Start: 31/12/2010
- Currency: CHF
- Initial Principle: 100
- Increase : by 50 for 3Y
Remaining Principal Due = -100
Original Total Principal = 200
- Duration of Increase: 1Y, starting from 31/3/2011 AM
- Duration of Decrease: until maturity , starting from 31/3/2012 AM
- Current Nominal Interest Rate: 3%
- Pricing Market Object: CHF.GOV
- Cycle of RP: 31/3/2012 AM / 1Q
- Re-pricing Type: Par-Rate
- Cycle of Interest Payment: 1Y, starting from 30/9/2011 AM

Setting ANN Financial Contract Type



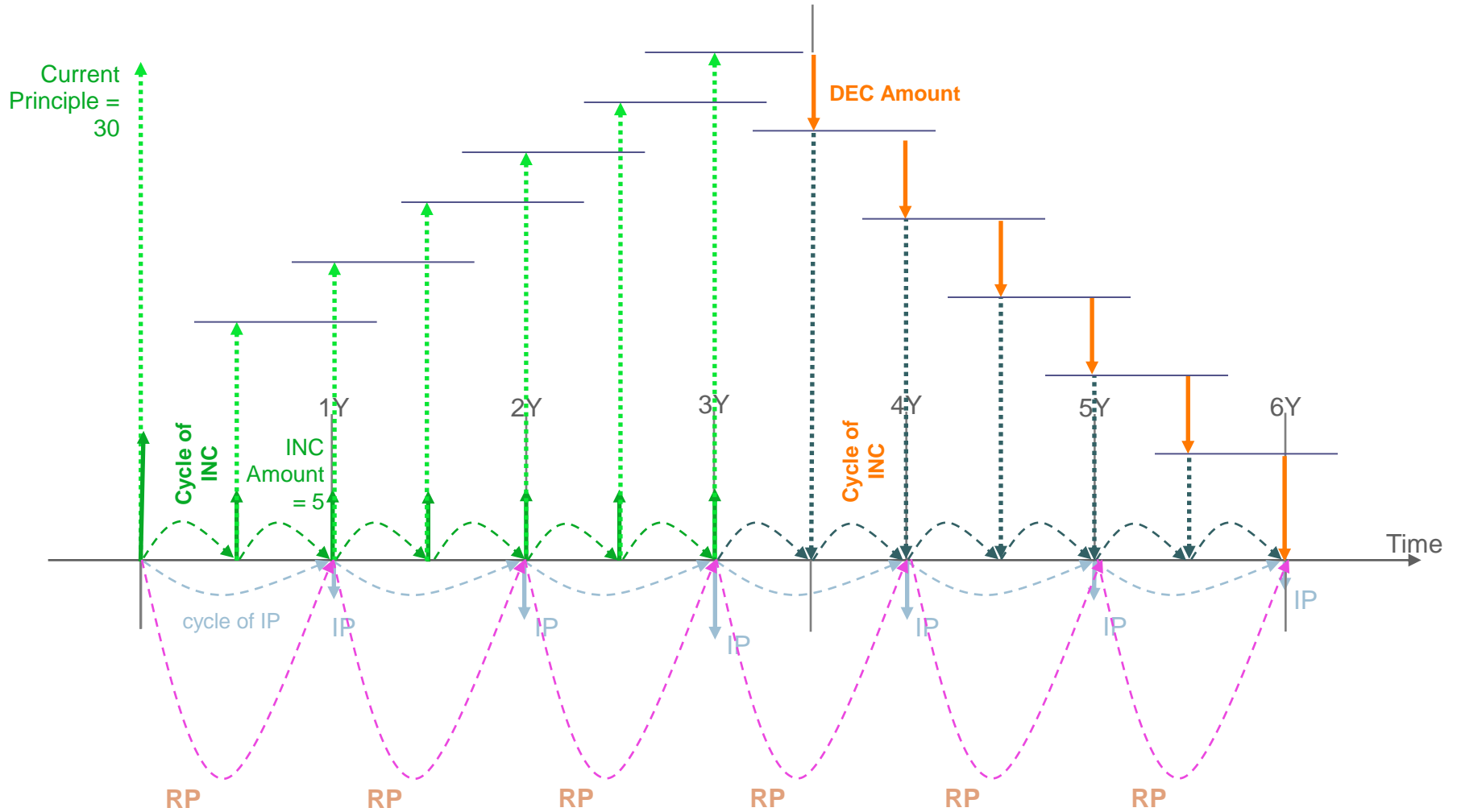
Setting Regular Payment (RGM) Financial Contract Type

Corporate Loan with Increase / Decrease Principle and Variable Interest payments

Mapping the RGM contract under the account Asset/Loans/Corporate

- Pricing Market Object: CHF.GOV
- Cycle of RP: 31/3/2012 AM / 1Y
- Re-pricing Type: Par-Rate

Setting RGM (Regular amortized) Financial Contract Type

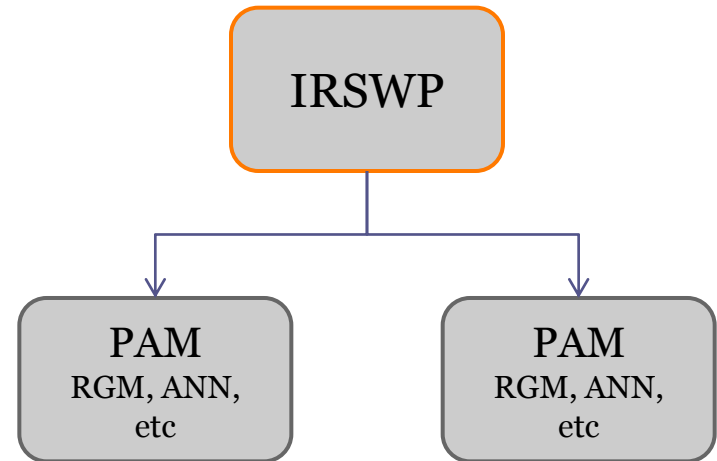


Setting Interest Rate Swap (IRSWP) Financial Contract Type

Structuring IRSWP with two PAMs

Mapping the IRSWP contract under the off balancing account “Off Balance Sheet “

- Source System Name: Hedging
- Source System Record Number: ?
- Currency: CHF
- Book Value & Book Value Dates : 1/4/2011 AM

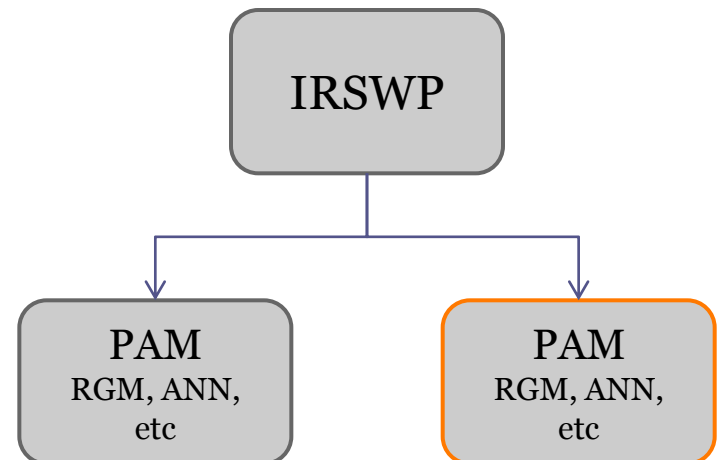


Setting Interest Rate Swap (IRSWP) Financial Contract Type

Structuring IRSWP with two PAMs

Leg 1 – PAM ONE

- Current Principle -100
- Cycle of IP every M , starting from 1/5/2011 AM
- Current Nominal Interest Rate: 5%
- Pricing Market Object: CHF.GOV

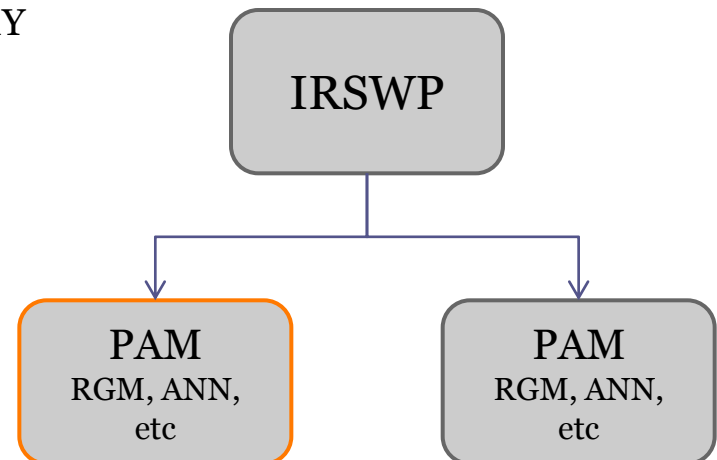


Setting Interest Rate Swap (IRSWP) Financial Contract Type

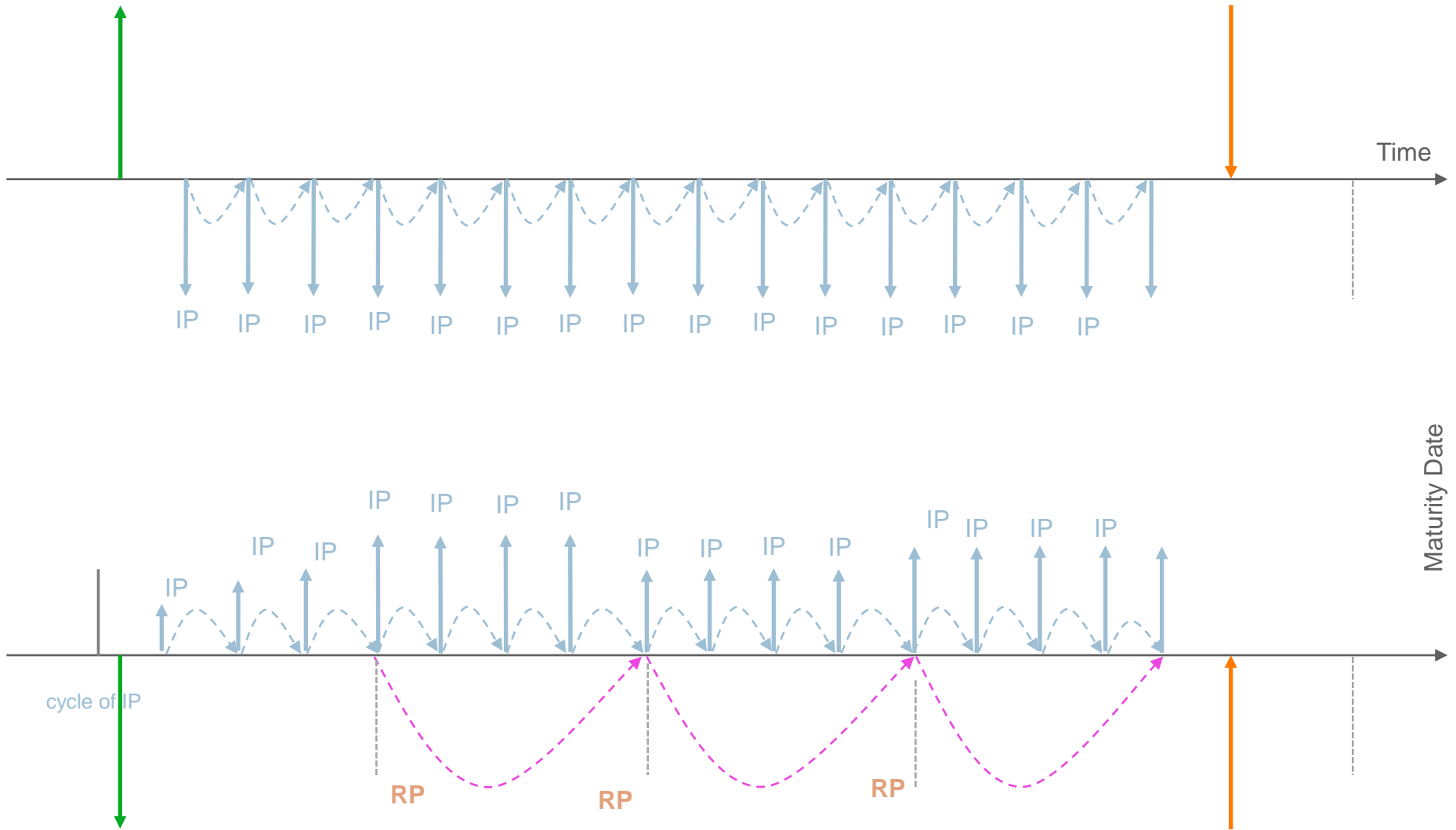
Structuring IRSWP with two PAMs

Leg 1 – PAM ONE

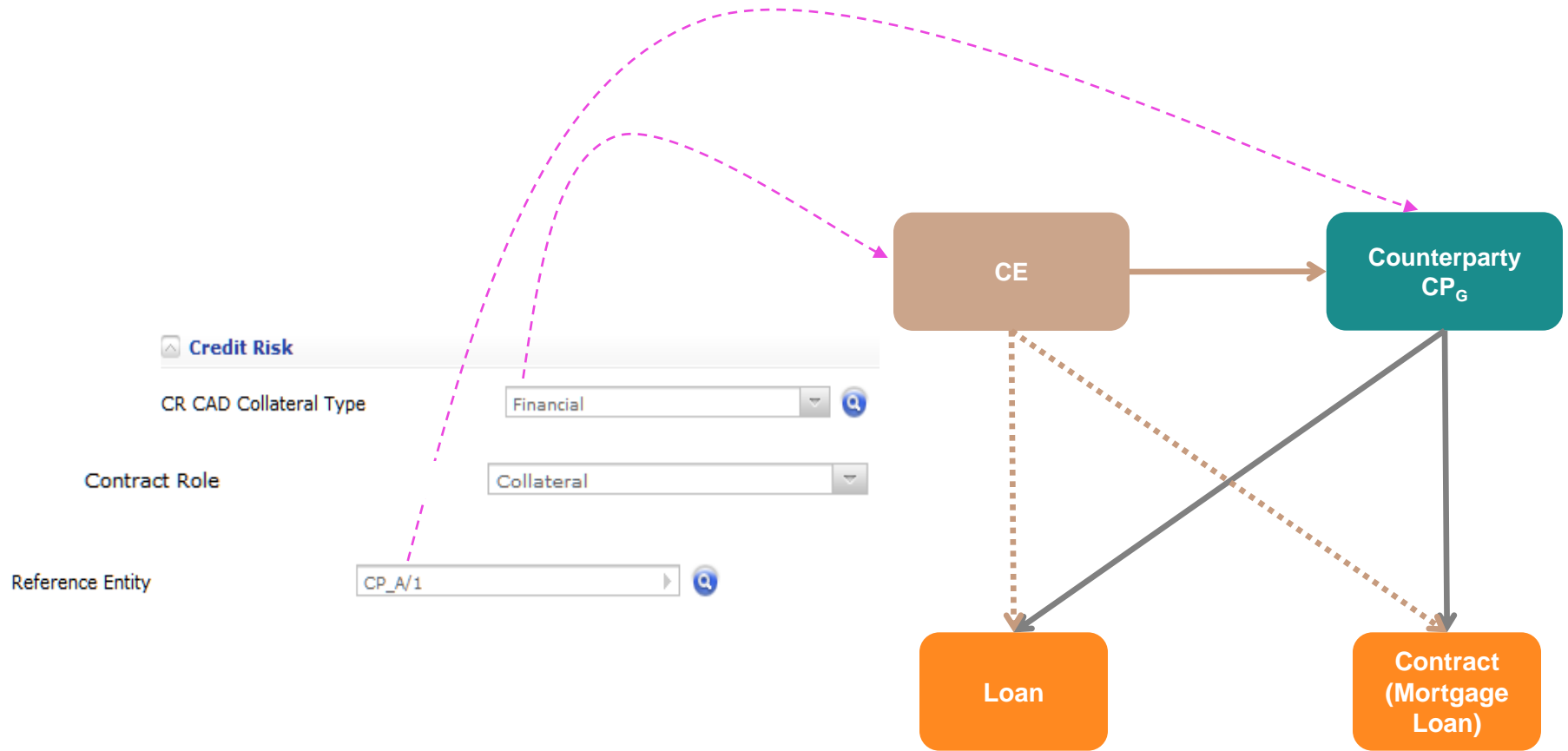
- Current Principle 150
- Cycle of IP every M , starting from 1/5/2011 AM
- Current Nominal Interest Rate: 3%
- Pricing Market Object: CHF.GOV
- Cycle of RP: 1/7/2011 AM / 1Y
- Re-pricing Type: Par-Rate



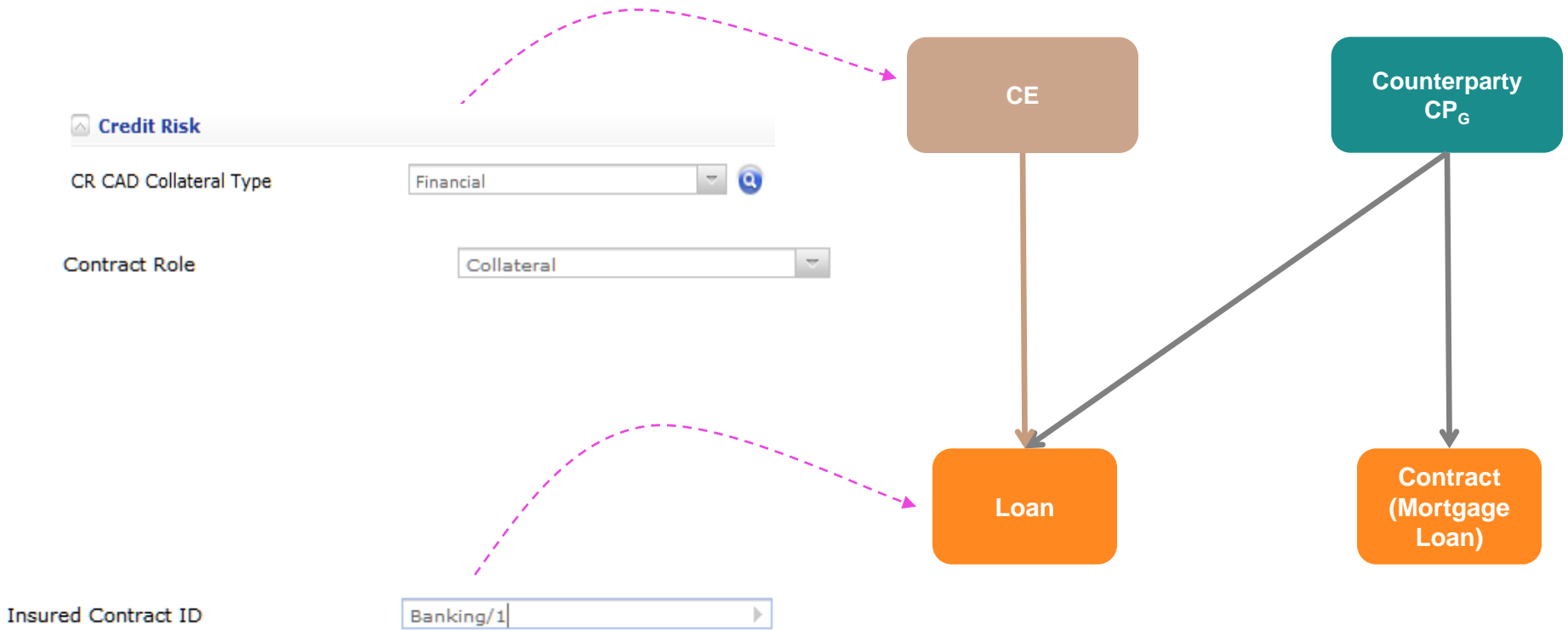
Setting IRSWP Financial Contract Type



If a collateral or a guarantee applies to all contracts belonging to a same counterparty, the reference to the insured counterparty is accomplished by filling the reference_entity attribute.

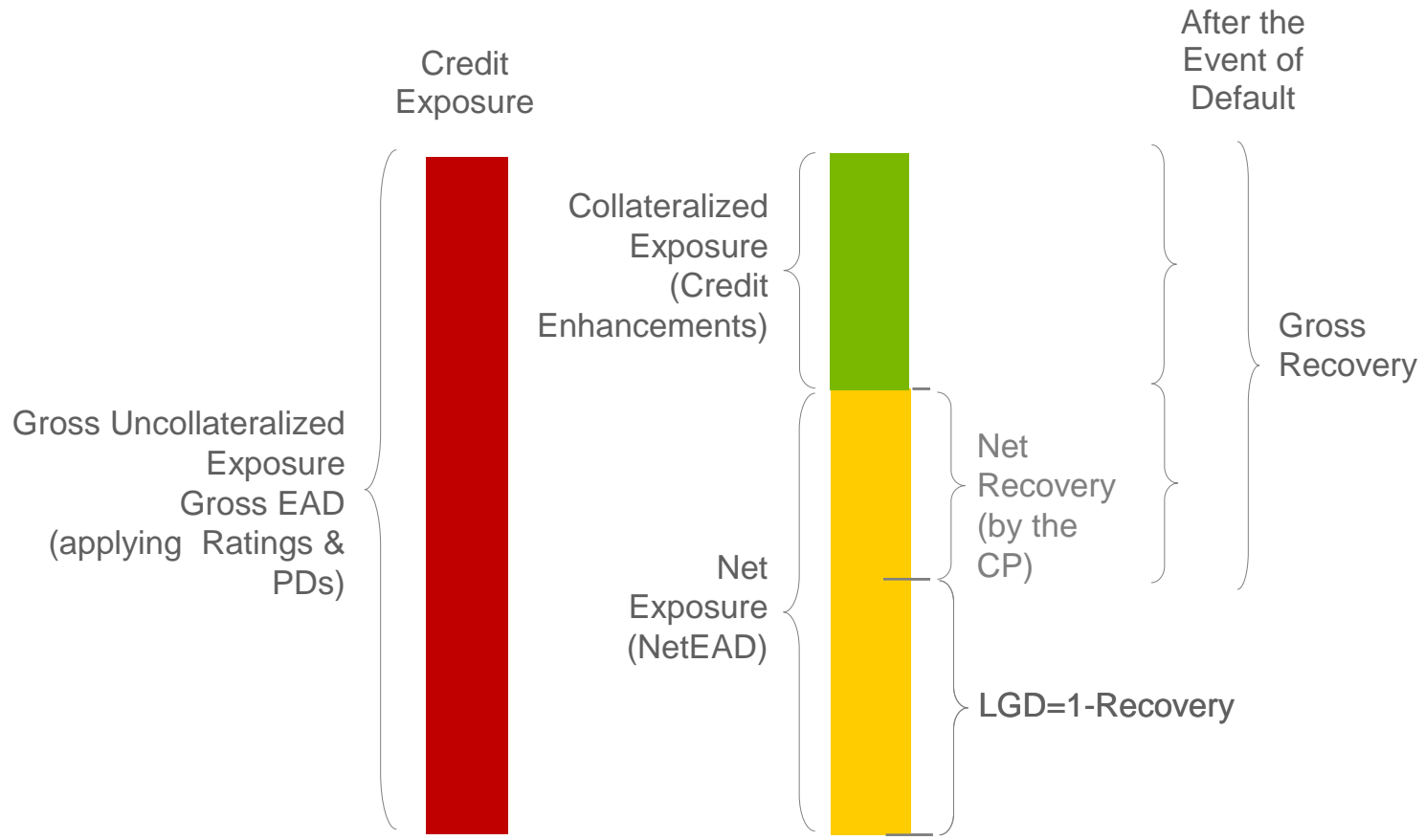


If a collateral or a guarantee applies to a single exposure (i.e. insures one specific contract), the reference to the insured contract is accomplished by filling the insured_contract_id attribute.

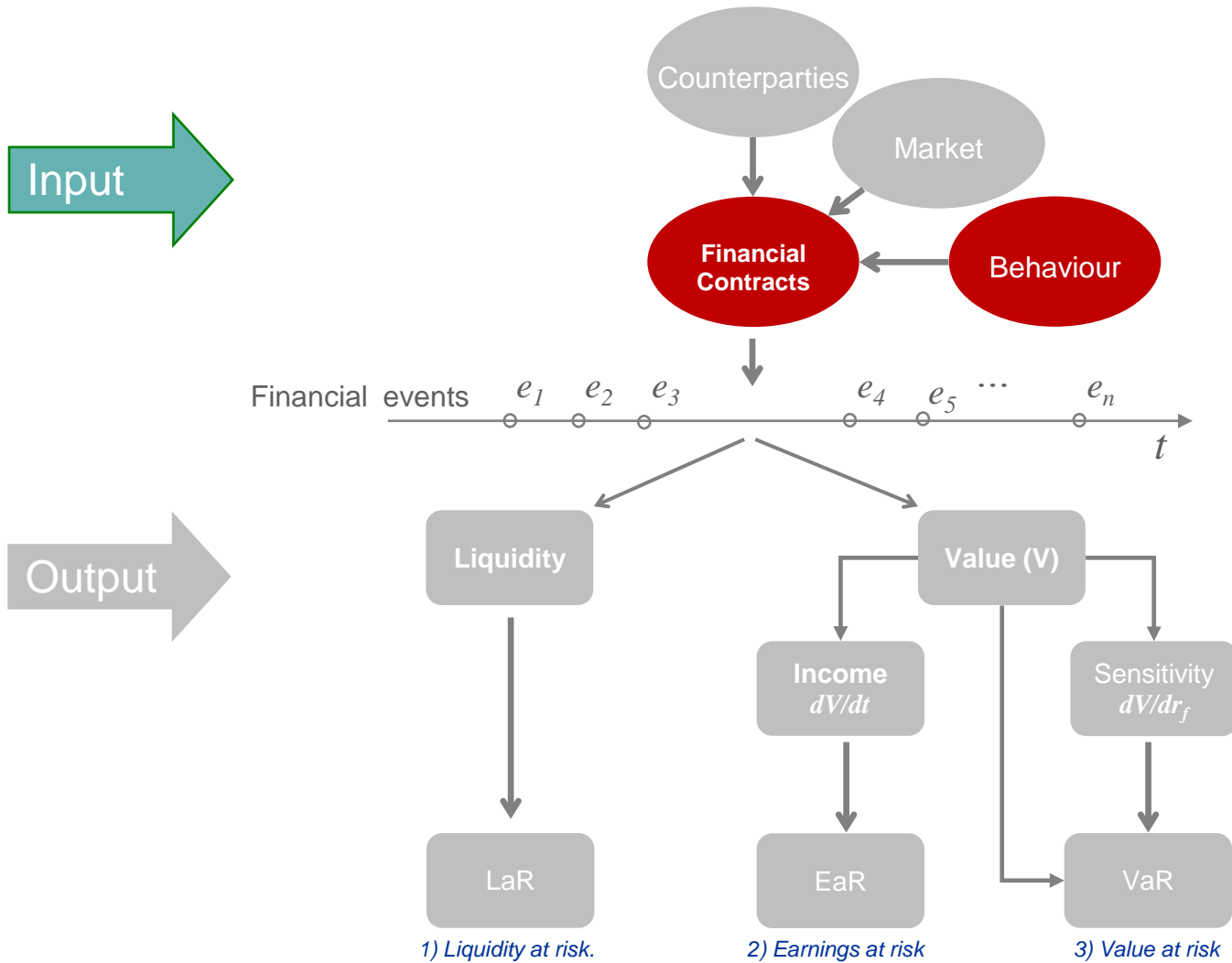


Credit Exposures

Exposures, credit enhancements and recoveries



The elements of Financial Analysis



Financial Risks Analysis

Behaviour Risk

Market Related

Credit Related

Drawings

Prepayments

Remaining
Principle

Sales

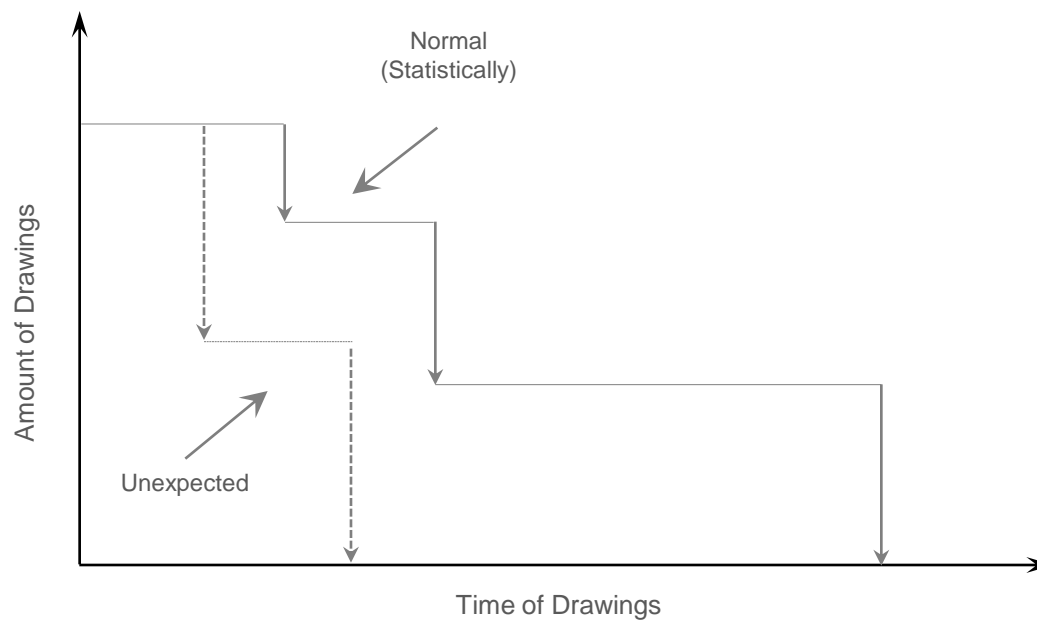
Recoveries

Use of
Facilities

Drawings / Replication

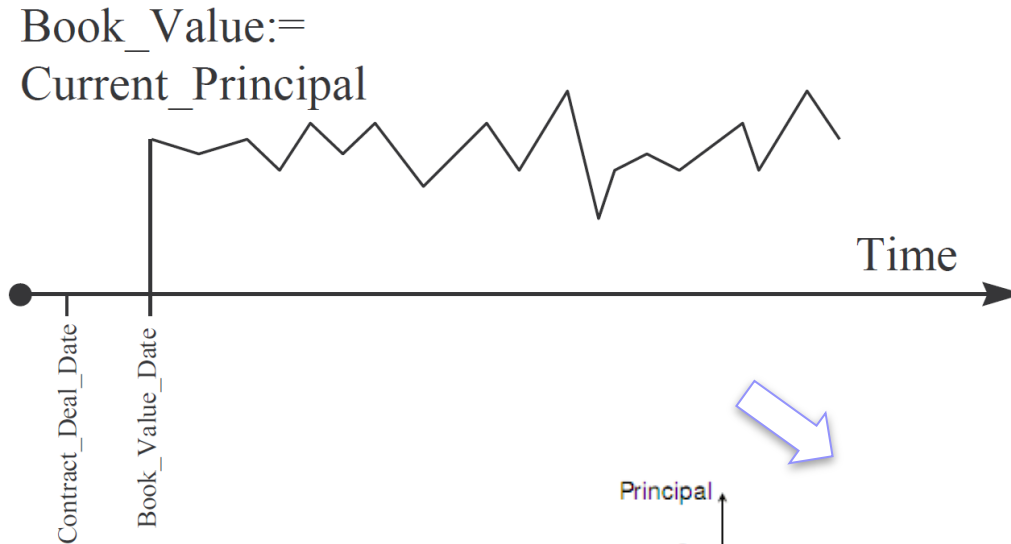
Behaviour on Counterparty Drawings

Drawing behaviour under statistically normal and stress financial risk conditions

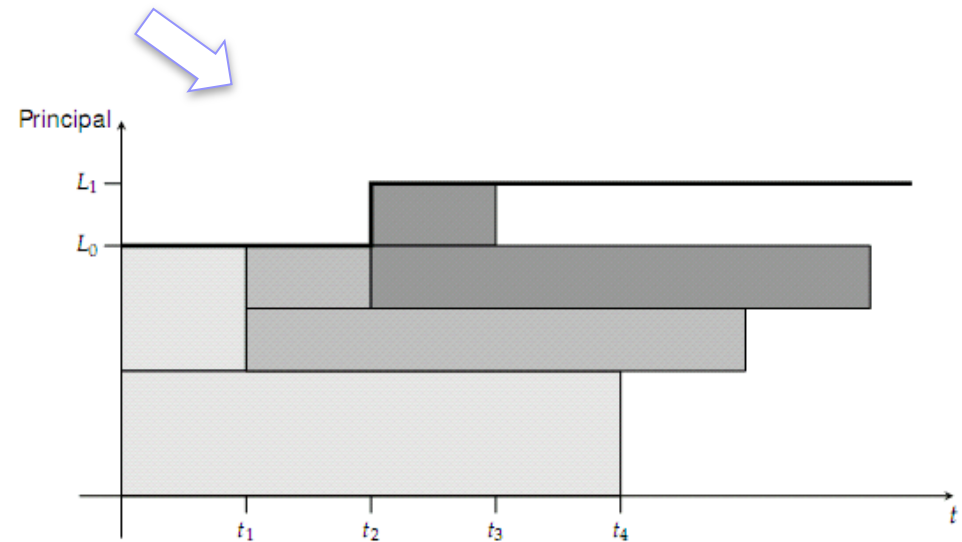


Behaviour on Counterparty Drawings

Mapping the behaviour of Undefined Maturity Profile (UMP) by replicating portfolio



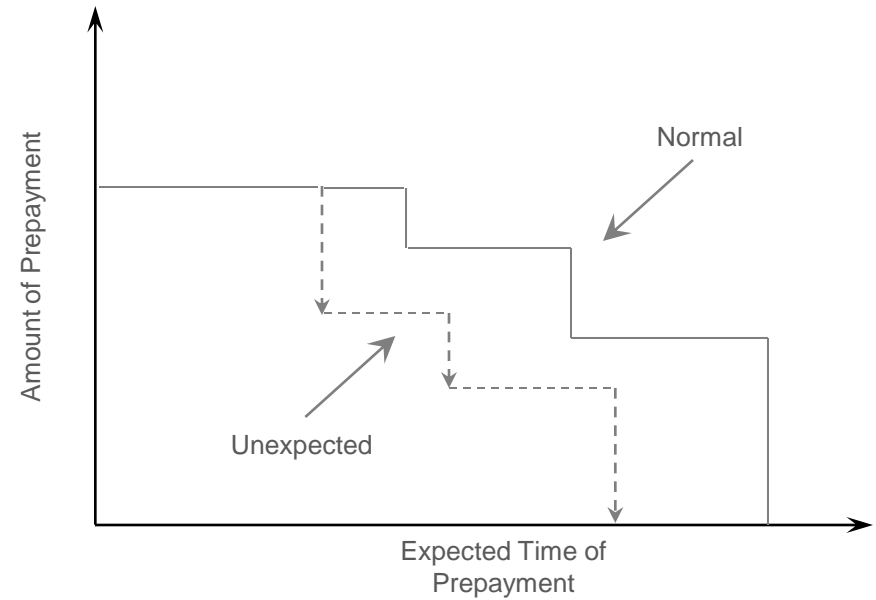
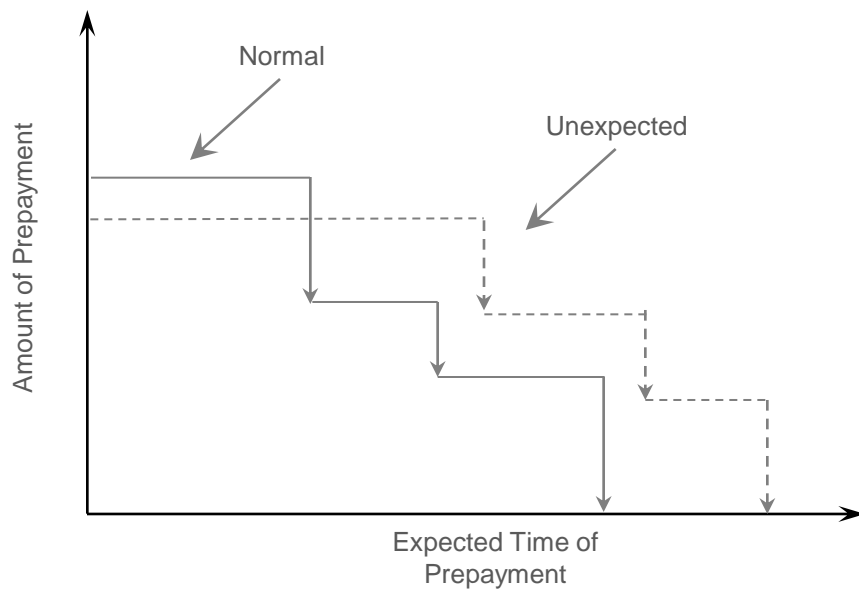
Replication of non-maturity contracts =
Shadow maturity contracts to generate
similar cash patterns



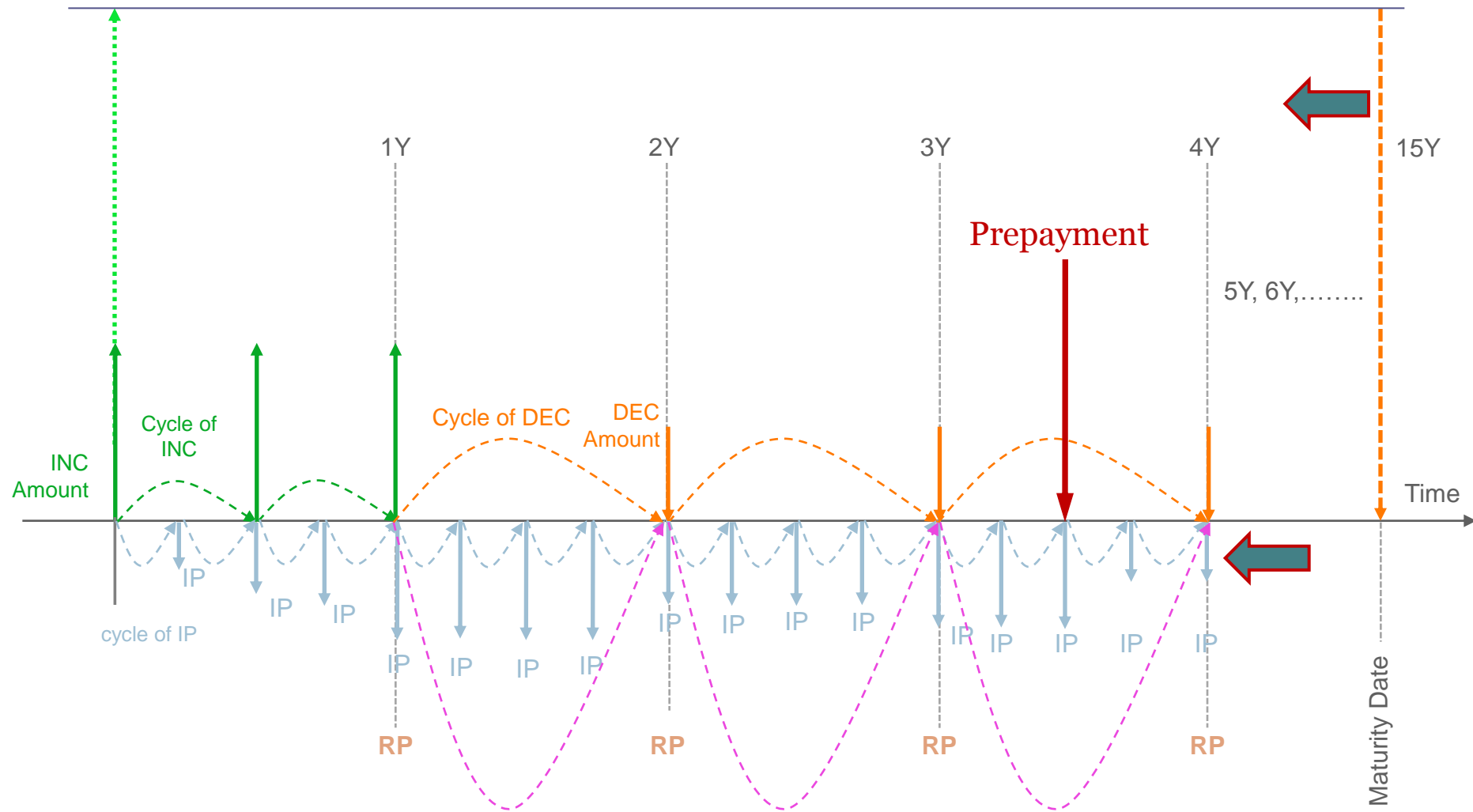
Prepayments

Behavior of Prepayments based on Market Conditions

Prepayment behaviour under statistically normal and stress financial risk conditions



Prepayment in ANN Financial Contract Type



Behavior of Prepayments

The following aspects of prepayment behavior should be modeled:

- **Value Basis:** Prepayment can be specified with respect to the nominal value or the market value of a contract.
- **Time Period**
 - **PER OCCURRENCE:** the prepayment amount is understood as the amount which is prepaid at each simulation interval
 - **PER ANNUM:** the prepayment amount is the amount that is prepaid on an annual basis
- **Fraction:** This parameter determines the fractional part of the contract's value (using nominal or marked to market valuation) that is prepaid.

Behavior of Prepayments

- **Fraction:** determines the fractional part of the contract's value (using nominal or marked to market valuation) that is prepaid.
- **Prepayment Dates:** The precise dates when the Prepayment events are generated depend on the value of this parameter:
 - **CYCLE:** when this value is selected, the user must additionally provide an anchor date through the Anchor parameter and a cycle period through the Period parameter. Prepayments occur at the dates in sequence which is generated from the cycle, up until and including the last simulation interval.
 - **RELATIVE TO ANALYSIS DATE:** This choice of parametrization is similar to the above one, but the Anchor parameter is interpreted differently. The allowed values for this parameter are relative intervals (e.g. 3 · Months). This interval is added to the analysis date in order to determine the anchor for the cycle of prepayment dates.

Sales

Behavior of Sales

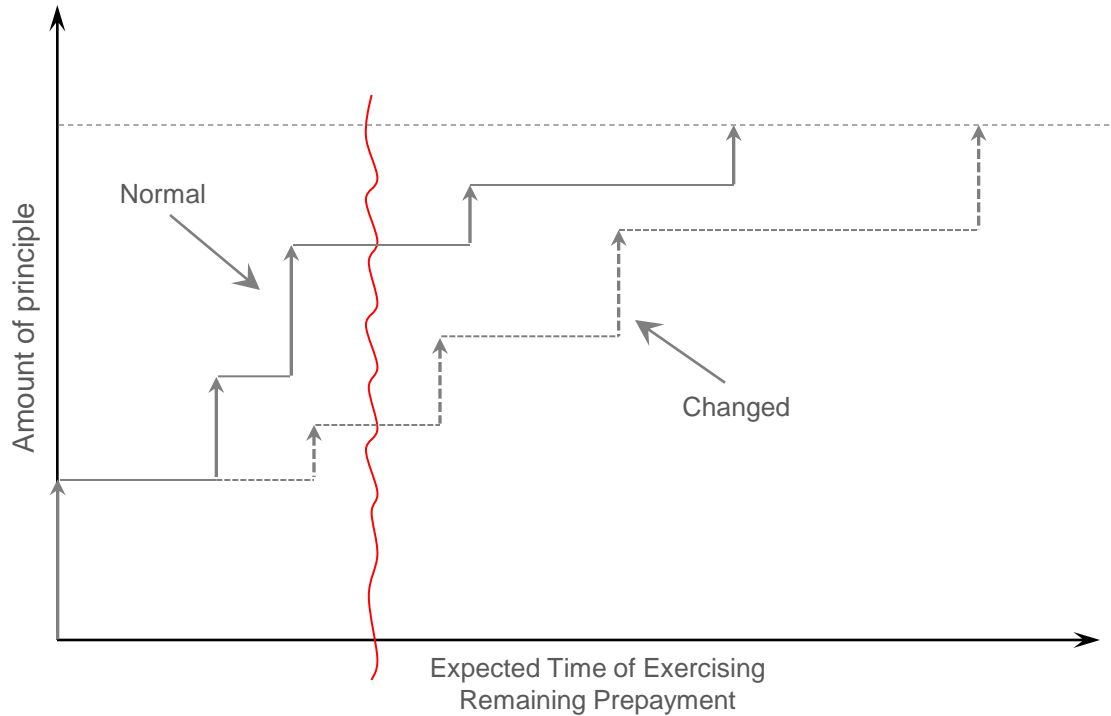
The following aspects of sales behavior should be modeled:

- **Time Period**
 - **PER OCCURRENCE:** the sale amount is understood as the amount which is sold at each simulation interval.
 - **PER ANNUM:** the prepayment amount is the amount that is prepaid on an annual basis
- **Fraction:** This parameter determines the fractional part of the contract's value, using marked to market valuation, that is sold.
- **Sales Dates** The precise dates when the sales events are generated
- **Scaling Factor:** This parameter allows modeling selling under stressed market conditions by means of a scaling factor.

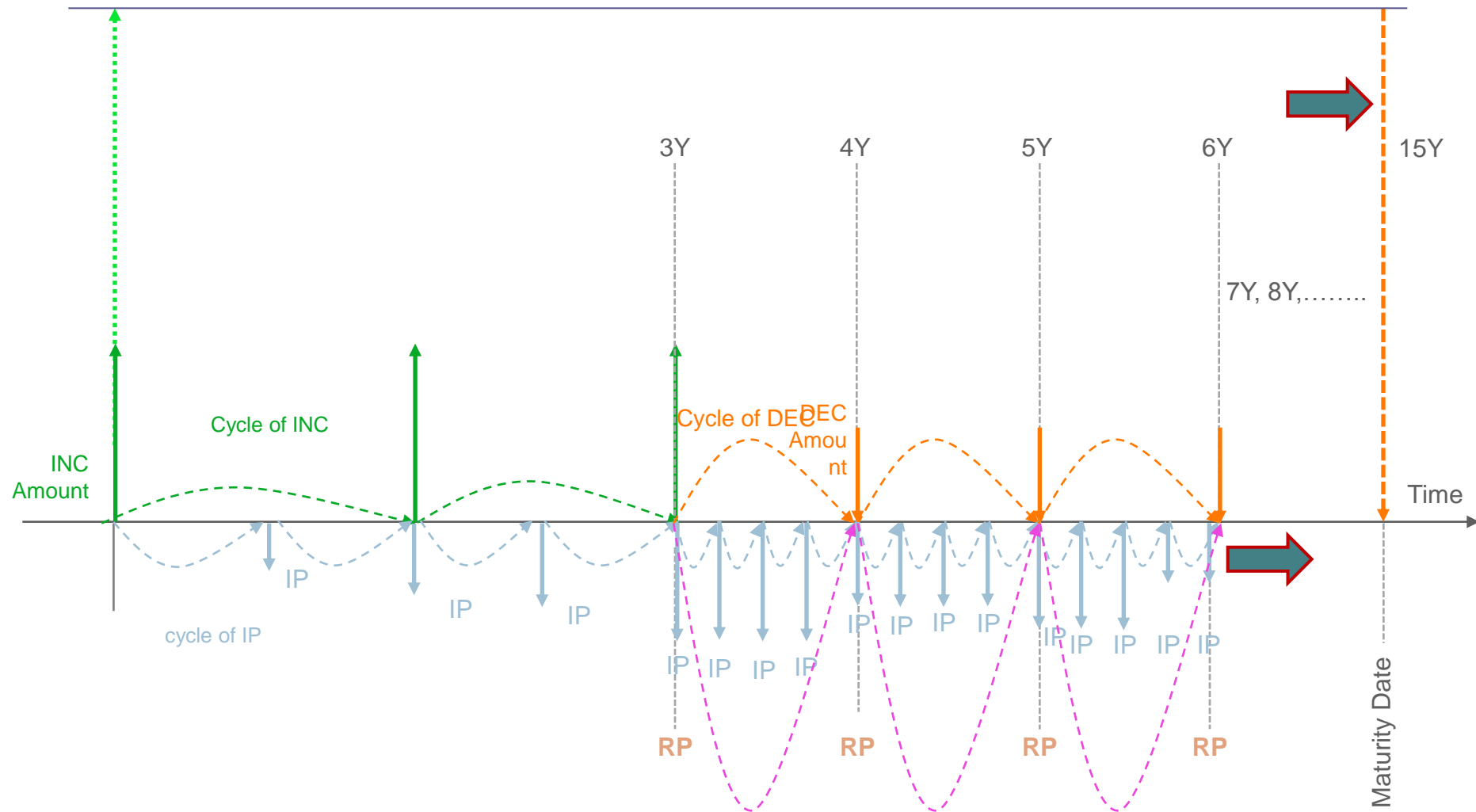
Remaining Principle / Draw Downs

Behaviour on Remaining Principle / Draw Downs

The borrower usually takes their credit gradually, i.e. they withdraw their loan steadily in accordance with the progress of a construction project
Behaviour under statistically normal and stress financial risk conditions



Prepayment in ANN Financial Contract Type



Remaining Principle / Draw Downs

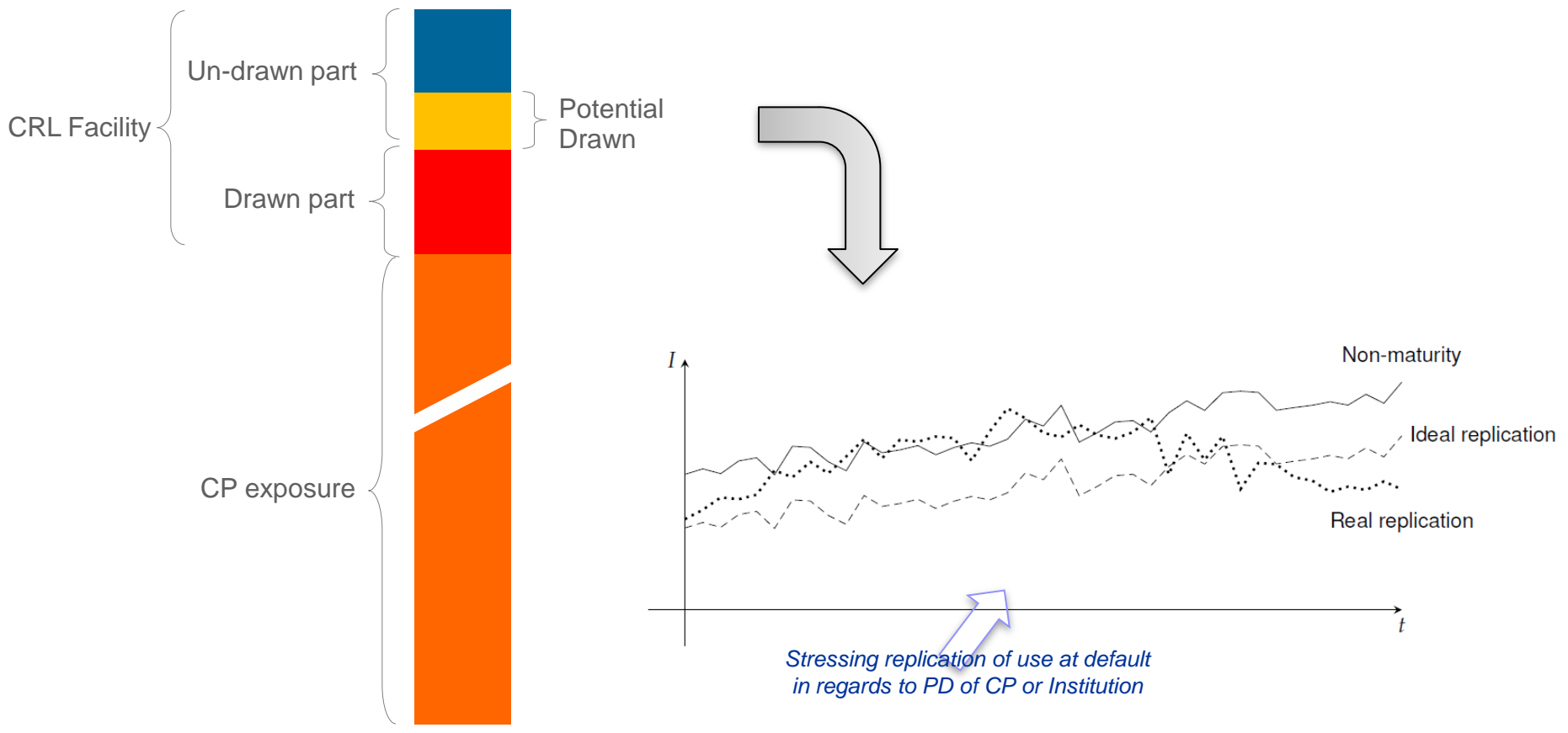
The following aspects of Remaining Principle / Draw Downs behavior should be modeled:

- **Level of Drawing:** defines how much of the remaining principal will be drawn.
- **Drawing Sequence:** The precise dates when the remaining principal cash flows occur
 - **Anchor** : relative intervals (e.g. 3 Months, 2 Years) added to the value date in order to determine the anchor for the cycle of remaining principal dates.
 - The cycle period is provided through the **Cycle** parameter
 - **Fraction** parameter takes values between 0 and 1.
 - **Unit** can be either **Per Occurrence** (amount withdrawn at each simulation interval) or **Per Annum** (amount withdrawn yearly).
- **Fee Rate:** The rate definition of the fee payment.
- **Fee Calculation Period:** The precise period for which the fee payment will be calculated

CRL Drawings

Behavior of CRL Drawings

Credit Facilities



Remaining Principle / Draw Downs .

The following aspects of CRL Drawings behavior should be modeled:

- **Level of Drawing:** The amount that will be drawn from a given credit line..
- **Drawing Sequence:** The amount to be drawn can be scheduled relative to the credit line value date or analysis date
 - **Anchor** : he basis date at which the drawing cycle will start..
 - **Cycle:** The periodicity of the drawings
 - **Fraction:** The percentage amount of the given credit line that is drawn.
 - **Unit:** The setting determining whether the given fraction applies per annum or for every scheduled drawing.

Remaining Principle / Draw Downs .

CRL Drawings behavior based on Future Drawing Contracts :

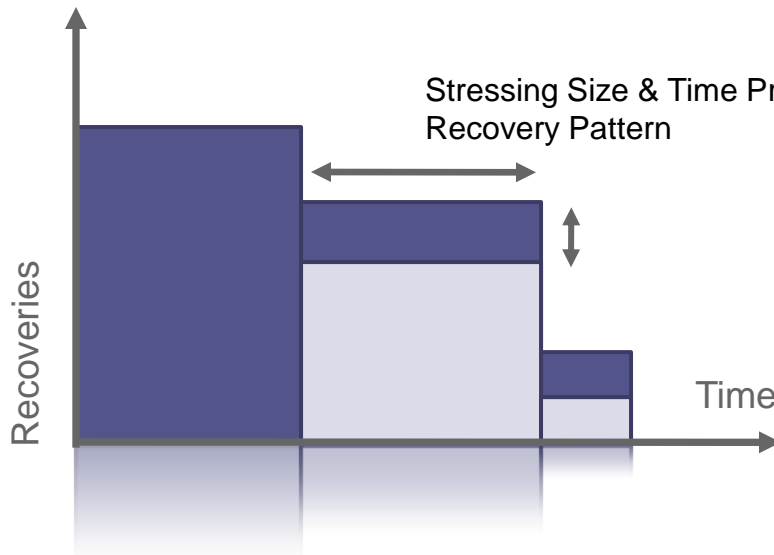
- **Description:** The desired name of the contract
- **Percentage:** The apportioned amount of the future drawing that becomes this contract
- **Drawing Contract:** The contract type that will be generated with a drawn amount.

Credit Loss Recoveries

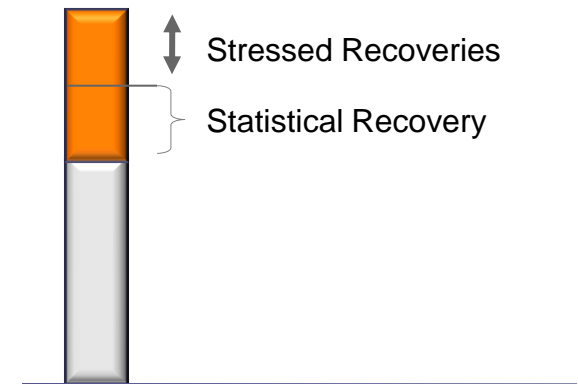
Mapping the Behaviour on Counterparty Recoveries

Stressing behaviour in recoveries based on Statistical models and/or Assumptions

Stress scenarios are applied by using determined adverse parameters to stress the statistical models used for projecting the CP behaviour in recoveries



Current Principle



Setting the Behaviour on Counterparty Recoveries

The following aspects of Counterparty Recoveries behavior should be modeled:

- **Recovery Rate Stress:** Enables the shifting of the recovery rate.
- **Recovery Period:** Enables the shifting of the recovery and enhancement payment dates